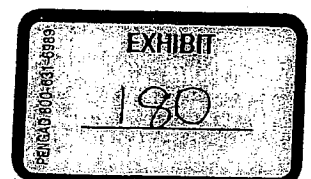
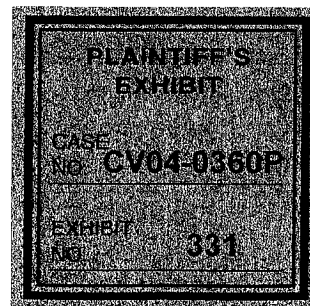


## Table of Exhibits

Exhibit 1	Curriculum Vitae of Michael J. Moore
Exhibit 2	Record of Testimony, 2001-2005, Michael J. Moore
Exhibit 3	Materials Reviewed
Exhibit 4	Washington Regulations
Exhibit 5	Changes in Consumer Surplus, Transfers and Efficiency Losses
Exhibit 6	Changes in Consumer Surplus, Transfers and Efficiency Losses, Sensitivity Analysis
Exhibit 7	Changes in Consumer Surplus, Transfers and Efficiency Losses – Graphical Examples for Beer and Wine
Exhibit 8	Nebraska per Capita Consumption Regressions by Beverage Type
Exhibit 9	Nebraska Ethanol Consumption, Model 1
Exhibit 10	California per Capita Consumption Regressions
Exhibit 11	California Prediction, Model 1
Exhibit 12	Alcohol Related Fatal Accidents as a Fraction of Fatal Accidents in 2003



**Exhibit 1**



## Michael J. Moore

Managing Director

P 312-880-3287

F 312-583-8701

mmoore@huronconsultinggroup.com

550 West Van Buren Street  
Chicago, IL 60607

### Curriculum Vitae

#### Professional experience

Dr. Moore is a Managing Director at Huron Consulting Group and National Practice Director for the Economic Consulting & Litigation practice. He is also the Bank of America Research Professor at the Darden School of Business and Professor of Health Evaluation Sciences at the School of Medicine, University of Virginia. Additionally, he is a Research Associate in the Health Economics and Health Care sections at the National Bureau of Economic Research, and Donald Bren Scholar at the Bren School of Environmental Sciences and Management, UC-Santa Barbara.

Before joining Huron, Dr. Moore's consulting work included the formulation and estimation of economic and econometric models for large corporate clients, and the provision of expert testimony and litigation support in tort, antitrust, and commercial litigation. Specific economic consulting projects include developing an early retirement/refinance forecasting model for mortgage loans, economic analyses of clinical trial data for HIV-AIDS combination therapies and for treatments for Alzheimer's disease, and cost-benefit analysis of patent protection in the pharmaceutical industry.

With regard to litigation work, Dr. Moore's experience includes economic analyses of large, invoice-level data sets, for purposes of class certification, liability assessment, and damage estimation in antitrust price-fixing cases. He has consulted on major multiparty class certification cases, and has developed theoretical econometric critiques for purposes of litigation. Dr. Moore has also consulted and testified in business litigation and tort cases in the insurance, pharmaceutical, health care, and consumer products industries.

Dr. Moore's research ranges over a number of fields in applied microeconomics. He has published research in occupational safety, insurance, health economics, industrial organization, regulation and antitrust, products liability, product safety, asset pricing, and applied econometrics. He has won a number of prizes for his published research, including the Kenneth Arrow Award for the best paper in health economics, and the Kulp-Wright award for the best book on risk and insurance.

#### Academic experience:

- Bank of America Research Professor, 2002-present; Professor, 2001-2002, Visiting Associate Professor, 2000-2001, Darden Graduate School of Business; Professor of Health Evaluation Services, UVA Medical Center, 2001-2003, University of Virginia.
- Stigler Center for the Study of the Economy and the State, Graduate School of Business, University of Chicago. Olin Fellow, 1999-2000.
- Bren Scholar, Bren School of the Environment, UC-Santa Barbara, 1999-present.
- Fuqua School of Business, Duke University: Associate Professor (with tenure), 1992-2001; Associate Professor (without tenure), 1990-1992; Assistant Professor, 1986-1989; Visiting Assistant Professor, 1984-1985.
- Bren School of the Environment, UC-Santa Barbara, Visiting Professor, Spring 1999.
- INSEAD, Visiting Professor, 1995-96.
- Terry Sanford Institute of Public Policy Studies, Duke University, Associate Professor, 1995-1998.
- University of Michigan, Graduate School of Business, Instructor of Economics, 1981-1984.

#### Awards & prizes

- Kenneth Arrow Award for best paper in health economics, 1993, Medical Care Section, American Public Health Association, for "Drinking and Schooling"
- Kulp-Wright Prize for Outstanding Book in Risk and Insurance, 1990, American Society of Risk and Insurance, *Compensation Mechanisms for Job Risks*
- Best article published in *Economic Inquiry*, 1988, for "The Quantity Adjusted Value of Life"

**Fellowships, grants, appointments, and government research contracts**

- Center for the Study of Aging and Human Development, Duke University Medical Center, Senior Fellow 1994 - present
- University Research Council, Duke University, 1986, 1987
- National Science Foundation: Program in Decision, Risk, and Management Science, co-principal investigator, Product Liability Project 1989-91
- National Science Foundation: Program in Decision, Risk, and Management Science, co-principal investigator, Consumer Product Safety Project, 1990-1991
- National Institute on Alcohol Abuse and Alcoholism: Youthful Drinking Project, 1992-1994
- National Institute for Child Health and Development: Shannon Award, 1994-95
- National Institute for Child Health and Development: Pregnancy Outcomes Project, 1996-98
- U.S. Veteran's Administration: "Informal Caregivers of Veterans with Dementia: Costs, Quality of Life, and Service Use," 1997-present.
- National Institute for Child Health and Development: Long Term Consequences of Abortion Funding Cutoffs, 1999-2001

**Professional activities**

- Editorial Advisory Board, Journal of Risk and Uncertainty
- American Economic Association, Econometric Society, Industrial Relations Research Association
- Duke University: Faculty Compensation Committee, 1994-1996; Alcohol Policy Task Force, 1995; Sports Agents Committee, 1991-2001. Fuqua School of Business: Economics Area Coordinator, 1994-1998; Curriculum Committee, Admissions Director Search Committee, Health Care Management Committee; LEAD Program in Business, Curriculum Director 1993-1996
- Ad Hoc Reviewer, Journal of Political Economy, American Economic Review, Quarterly Journal of Economics, RAND Journal of Economics, Review of Economic Studies, Journal of Law and Economics, Review of Economics and Statistics, Journal of Risk and Uncertainty, Journal of Health Economics, Journal of Environmental Economics and Management, Journal of Human Resources, Journal of Public Economics, Economic Journal, Journal of Labor Economics, Industrial and Labor Relations Review, Economic Inquiry,
- Dissertation Committees: Lindsey Boiney (Fuqua School of Business), Jens Ludwig (Duke Economics), David Anderson (Duke Economics), Rosalie Pacula (Duke Economics), Natalie Webb (Duke Economics), Geoff Gee (Duke Economics), Ruskin Morgan (Fuqua School of Business), Robert Scharff (Duke Economics), Wei Zhu (Duke Economics)

**Education**

- University of Michigan, Department of Economics, Ph.D. (1984), M.A. (1982)
- M.B.A., Babson College (1978)
- B.S., Boston College (1975)

## Bibliography of Michael J. Moore

### Books

- Compensation Mechanisms for Job Risks: Wages, Workers' Compensation, and Product Liability, with W. Kip Viscusi, (Princeton University Press, 1990). Awarded Kulp-Wright Prize for Outstanding Book in Risk and Insurance, 1990.
- Safety Rules: 25 Years of Consumer Product Safety Regulation in the U.S. and the U.K., with W. Magat (Kluwer Academic Publishers, in process).

### Research Articles/Journal Articles

- [A1] "Workers' Compensation: Wage Effects, Benefit Inadequacies, and the Value of Health Losses," with W. Kip Viscusi, *The Review of Economics and Statistics*, Vol. 69, No. 2 (1987), pp. 249-261.
- [A2] "The Quantity Adjusted Value of Life," with W. Kip Viscusi, *Economic Inquiry*, Vol. 26, No. 3 (1988), pp. 369-388. Awarded best paper prize for 1988 volume of *Economic Inquiry*.
- [A3] "Doubling the Estimated Value of Life: Results Using New Occupational Fatality Data," with W. Kip Viscusi, *Journal of Policy Analysis and Management*, Vol. 7, No. 3 (1988), pp. 476-490.
- [A4] "Adaptive Learning, Adaptive Utility, and Rational Behavior in a Repeated Prisoner's Dilemma," with Marian C. Moore (1989), *The Journal of Risk and Uncertainty*, Vol 2, No. 4, pp. 267-283.
- [A5] "Rates of Time Preference and Valuations of the Duration of Life," with W. Kip Viscusi, *Journal of Public Economics*, no. 38 (1989), pp. 297-317.
- [A6] "Promoting Safety Through Workers' Compensation: The Efficacy and Net Wage Costs of Injury Insurance," with W. Kip Viscusi, *The RAND Journal of Economics*, Vol. 20, No. 4 (1989), pp. 499-515.
- [A7] "Discounting Environmental Health Risks: New Evidence and Policy Implications," with W. Kip Viscusi, *Journal of Environmental Economics and Management*, No. 18 (1989), pp. S51-S62.
- [A8] "Models for Estimating Discount Rates for Long-term Health Risks Using Labor Market Data," with W. Kip Viscusi, *Journal of Risk and Uncertainty*, Vol. 3 (1990), pp. 381-401.
- [A9] "Pioneering and Market Share: Is Entry Time Endogenous and Does It Matter?" with William Boulding and Ronald Goodstein. *Journal of Marketing Research*, Vol. 28 (1991), pp. 97-104.
- [A10] "Worker Learning and Compensating Differentials," with W. Kip Viscusi. *Industrial and Labor Relations Review*, Vol. 45, no. 1 (1991), pp. 80-96.
- [A11] "Product Liability, Research and Development, and Innovation," with W. Kip Viscusi, *Journal of Political Economy*, Vol. 101, no. 1 (1993), pp. 161-184.
- [A12] "Drinking and Schooling," with Philip Cook, *Journal of Health Economics*, Vol. 12 (1994), pp.411-429. Awarded Kenneth Arrow Award, best paper in health economics, (1994).
- [A13] "This Tax is for You: The Case for a Higher Beer Tax," with Philip Cook, *National Tax Journal*, 47 (3), (1994), pp. 559-573.
- [A14] "A Statistical Profile of Product Liability in the Pharmaceutical Industry," with W. Kip Viscusi and James Albright, *Seton Hall Law Review*, 24,(3),(1994), pp. 1418-1436.
- [A15] "Habit Formation, Interdependent Preferences, and Individual Consumption: Evidence from Panel Data," with Narayan Naik. *Review of Economics and Statistics*, vol. 88 (1996), pp. 321-328.
- [A16] "Unions, Employment Risks, and Market Provision of Employment Risk Differentials," *Journal of Risk and Uncertainty*, 10 (1), 1995, pp. 57-70.
- [A17] "The Learning Curve for Laparoscopic Cholecystectomy," with W. Meyers and C. Bennett, *American Journal of Surgery*.
- [A18] "Consumer Product Safety Regulation in the U.S. and U.K.: The Case of Bicycles," with Wes Magat. *RAND Journal of Economics*, Spring, 1996, pp. 148-164.
- [A19] "The Impact of Velnacrine Maleate on Time Use among Caregivers of Patients with Alzheimer's Disease," with Elizabeth Clipp. *Clinical Pharmacology*, 1996.
- [A20] "Death and Tobacco Taxes," *RAND Journal of Economics*, Summer, 1996, pp. 415-428.
- [A21] "An Outcome Measure for Use in Clinical Trials Research on Alzheimer's Disease. with Elizabeth Clipp and Linda George, *American Journal of Alzheimer's Disease*, 1996.
- [A22] "Labelling and Performance Standards for Product Safety: The Case of CPSC's Lawn Mower Standards," with Wes Magat, *Managerial and Decision Economics*, 1997.
- [A23] "The Injury Risk Consequences of the All-Terrain Vehicles Consent Decrees," with Wes Magat, *International Review of Law and Economics*, 1997, 17:379-393.
- [A24] "Changes in Abortion Funding and Pregnancy Outcomes," with Alan Parnell, Phil Cook, and Deanna Pagnini, *Journal of Health Economics* 18(1999), pp. 241-257.

- [A25] "Passive Smoking: Health Perceptions Myth vs. Health Care Reality," with Carolyn Zhu, *Journal of Risk and Uncertainty* 2000, 21(2):283-310.
- [A26] "Cheap Talk, Similar Preferences, and Strategic Information: Experimental Evidence on the Importance of Verbal Messages in a Two-Person Game," with Marian C. Moore and Ruskin Morgan, *Journal of Public Policy and Marketing*.
- [A27] "Informal Costs of Dementia Care: Estimates from the National Longitudinal Caregiver Study," with Elizabeth Clipp and Carolyn Zhu, *Journal of Gerontology: Social Sciences*, 56B, S219-S228, 2001.
- [A28] "Dementia Problem Behaviors and the Production of Informal Caregiving Services," with E. Clipp and C. Zhu, *Review of Economics of the Household*, vol. 1, no. 1 (forthcoming).

*Book chapters, conference proceedings, and book reviews*

- [B1] "Michigan State Expenditures and the Provision of Public Services," John Cross with Cathy Jensen, Michael Moore and Janet Wolfe, in Brazer, Harvey E., (ed.), *Michigan's Fiscal and Economic Structure*, University of Michigan Press, Ann Arbor, Michigan, (1981).
- [B2] "Social Insurance in Market Contexts: Implications of the Structure of Workers' Compensation for Job Safety and Wages," with W. Kip Viscusi, in *Contributions to Insurance Economics*, G. Dionne, ed. (Norwell, MA: Kluwer Academic Publishers, 1989), pp. 399-424.
- [B3] "Have Increases in Workers' Compensation Benefits Paid for Themselves?" with W. Kip Viscusi, in *Benefits, Costs, and Cycles in Workers' Compensation Insurance*, P. Borba and D. Appel, eds., (Norwell, Ma: Kluwer Academic Publishers, 1990), pp. 1-22.
- [B4] "Cooperation, Hierarchy, and Structure," with Marian Chapman Moore, in *Research on Negotiation in Organizations*, Vol. 2, Roy J. Lewicki, et al., ed., (JAI press, 1990), pp. 207-217.
- [B5] "Rationalizing the Relationship between Product Liability and Innovation," with W. Kip Viscusi, *Tort Law and the Public Interest*, P. Schuck, ed., (W. W. Norton Publishers, 1991), pp. 105-127.
- [B6] "An Industrial Profile of the Links between Product Liability and Innovation," with W. Kip Viscusi, in Litan, R. and P. Huber, *The Liability Maze* (Washington, D. C.: Brookings Institution, 1991) pp. 81-119.
- [B7] "Accident Records as a Screening Device: An Appraisal," in *The Human Resources Professional*, Vol. 3, no. 3 (1991), pp. 13-15.
- [B8] "Violence Reduction Through Restrictions on Alcohol Availability," with Phil Cook in *Alcohol, Health, and Research World*, Vol. 17, no. 2 (1993), pp. 151-156.
- [B9] "Taxation of Alcoholic Beverages," with Phil Cook, in Hilton, Michael, and Greg Bloss, *Economics and the Prevention of Alcohol-Related Problems*, U.S. Department of Health and Human Services, (1993), pp. 33-58.
- [B10] "Economic Perspectives on Alcohol Related Violence," with Phil Cook, in S. Martin, ed., *Alcohol and Interpersonal Violence*, Research Monograph No. 24, National Institute of Alcohol Abuse and Alcoholism, (1994), pp. 193-212.
- [B11] "Nonprice Competition, Cost Shocks, and Profits in the Airline Industry," with Messod D. Beneish in B. Starr McMullen, ed., *Research in Transportation Economics*, Vol. 3 (1994), pp. 67-94.
- [B12] Review of A Measure of Malpractice: Medical Injury, Malpractice Litigation, and Patient Compensation, Weiler, Paul C., et al., *Journal of Economic Literature*.
- [B13] Review of *Simulating Workplace Safety*, Kneisner, T. and J. Leeth, Kluwer Academic Press, forthcoming in *Journal of Economic Literature*.
- [B14] "Insurance for Workplace Injuries," in *New Palgrave Dictionary of Law and Economics*, P. Newman, ed.
- [B15] "Discontinuous Wage Changes and Job Events," with W. Kip Viscusi and Richard Zeckhauser, in *Research in Labor Markets*, S. Polachek, ed., vol. 17, 1998.
- [B16] "Alcohol," with Philip Cook. in Newhouse, J., and A. Cuyler, eds., *Handbook of Health Economics*, Amsterdam: North-Holland, 2000.
- [B17] "Environment and Persistence in the Youthful Demand for Alcohol," with Philip Cook, in Gruber, J., ed. *Risky Behavior Among Youths*, University of Chicago Press/NBER.
- [B18] "The Health Care Consequences of Smoking and its Regulation," with James Hughes, in Garber, A., ed., *Frontiers of Health Policy*, vol. 4. NBER.
- [B19] "The Economics of Alcohol Abuse and Alcohol Control Policies," with Philip Cook, *Health Affairs* (2002).
- [B20] "Informal Costs of Dementia," with E. C. Clipp and Carolyn Zhu, In *Research and Practice in Alzheimer's Disease and Other Dementias (special issue on Caregiving)*. B. Vellas, Editor-in-Chief. European Alzheimer's Disease Consortium (EADC), In press, 2002.
- [B21] *Product Liability Entering the 21<sup>st</sup> Century*, with W. Kip Viscusi (AEI-Brookings Joint Center for Regulatory Studies, 2001).

- [B22] "Cargo Cult Econometrics: Specification Testing in Simultaneous Equation Marketing Models," with Russ Morgan and Judith Roberts. Forthcoming in Farris, Paul, and Michael Moore, eds., *PIMS in Retrospect and Prospect: Essays in Honor of Robert Buzzell*.
- [B23] "Competitive Response to Entry," with Marian Moore and Ronald Goodstein. Forthcoming in Farris, Paul, and Michael Moore, eds., *PIMS in Retrospect and Prospect: Essays in Honor of Robert Buzzell*.

*Other publications*

- [C1] "Effect of Mentane (velnacrine maleate) on Alzheimer Caregiver Time Allocation: A Multicenter, Double-blind Comparison with Placebo," with Elizabeth C. Clipp. On file Hoechst-Roussel Pharmaceuticals Neuroscience Strategic Marketing, (1993).
- [C2] *Consumer Product Safety Regulation: Lessons from International Data*, with Wesley Magat. Final Report to National Science Foundation, Decision, Risk, and Management Science Program, Project No. 8922249, (1994).
- [C3] "Alzheimer's Disease and Caregiver Time," with Elizabeth C. Clipp. Letter to the Editor, *The Lancet*, 1994.
- [C4] "Impact of Therapy on Caregiving Time and Costs in Alzheimer's Disease," with Elizabeth C. Clipp. *Progress in Alzheimer's Disease*, 1994, in press.
- [C5] "Block the threats to Workers' Compensation," op-ed article, *Wall Street Journal*. Working papers

*Working papers*

- [W1] *Applied Econometrics: a STATA Companion*, with Gregg Talbert and Jim Albright, Working Paper.
- [W2] "Addiction and Schooling."
- [W3] "Drinking and Earnings," with Philip Cook, draft.
- [W4] "Drinking by Young Adults, Part I: Demographics," with Philip Cook and Rosalie Pacula. Center for the Study of Business, Regulation, and Economic Policy Working Paper, No. 93-15.
- [W5] "The Efficacy of Voluntary Safety Standards: Lessons from the Chain Saw Industry," with Wesley Magat.
- [W6] "Habit and Heterogeneity in the Youthful Demand for Alcohol," with Philip Cook. Center for the Study of Business, Regulation, and Economic Policy Working Paper, No. 94-3.
- [W7] "Preferences in Competitive Interactions," with M.C. Moore and R. Morgan, Under Review.
- [W8] "The Political Economy of Workplace Smoking," Under Review.
- [W9] "Napsterizing Pharmaceuticals: Access, Innovation, and Consumer Welfare," with Edward Snyder and James Hughes. NBER Working Paper No. 7769.
- [W10] "The Sealy Litigation and Its Aftermath," with Edward Snyder.
- [W11] "The Role of Coefficient Covariances in Recursive Policy Simulations," with James Hughes.

**Work In Progress**

- Econometric Models of Games with Strategic Communication (with Marian Moore and Russ Morgan).
- Smoking, Regulation, and Health Care
- U.S. v. Sealy and its Aftermath (with Edward Snyder)
- Pharmaceutical Regulation and Antitrust

**Presentations at Seminars, Conferences, and Professional Meetings**

1984-1994

*Workers' Compensation: Wage Effects, Benefit Inadequacies, and the Value of Health Losses*

- Labor Economics Seminar, Department of Economics, University of Michigan, Ann Arbor, MI
- Center for the Study of Business Regulation, Duke University, Durham, NC
- NBER Summer Institute
- NC State University Economics Department
- Economics Research Institute, Research Triangle Park, NC

*Rates of Time Preference and Valuations of the Duration of Life*

- NBER Summer Institute
- Faculty Research Seminar, Economics Department, Northwestern University
- Annual Meetings, American Economics Association
- Summer Meetings, Econometric Society

*The Effects of Measurement Error and Ability Bias on Estimates of Compensating Differentials*

- Atlantic Economic Association Meetings
- Washington Statistical Society Workshop

*Promoting Safety through Workers' Compensation*

- NBER
- Faculty Research Seminar, Economics Department, Northwestern University

*Product Liability, Research and Development, and Innovation*

- Seminar in Law and Economics, School of Law, University of Michigan
- NBER Summer Institute
- Center for the Study of Business Regulation, Duke University
- Brookings Institution

*Adaptive Learning, Adaptive Utility, and Rational Behavior*

- Duke University, Fuqua School of Business

*Discounting Environmental Health Risks*

- American Economics Association Annual Meetings, Chicago, IL

*Pioneering and Market Share*

- ORSA/TIMS Conference, Atlanta, GA

*What Can We Learn from Disguised PIMS Data?*

- ORSA/TIMS Conference, UT Dallas, Dallas, TX

*Skill, Choice, and Chance in the Entry Timing Decision*

- ORSA/TIMS Conference, Center HECISE, Jouyen Joussas, France

*Drinking and Schooling*

- NBER Summer Institute
- Labor Workshop, NC State University
- Faculty Research Seminar, Sanford School of Public Policy, Duke University
- Economics Department, Bates College, Lewiston, ME
- Conference on Alcohol Abuse, National Institute of Alcohol Abuse and Alcoholism
- Center for the Study of Business Regulation, Duke University

*Habit and Heterogeneity in the Youthful Demand for Alcohol*

- NBER Summer Institute
- Annual Meetings, American Public Health Association, Washington, DC

**1995-1996**

*Death and Tobacco Taxes*

- Center for the Study of Business Regulation, Duke University, Durham, NC

*Velnacrine Maleate and Caregiver Quality of Life: Results from a Clinical Trial*

- HoechstRoussel Pharmaceuticals, New Jersey

*Economic Analysis of Clinical Trial Data*

- Duke University
- HoechstRoussel Pharmaceuticals, Kansas City, MO

**1996-1997**

*Death and Tobacco Taxes*

- School of Public Health, Yale University, New Haven, CT

- NBER Summer Institute, Cambridge, MA

*Bicycle Safety Regulation in the U.S. and the U.K.: Lessons from International Data*

- NBER Summer Research Institute, Cambridge, MA
- Center for the Study of Business Regulation, Duke University, Durham, NC

*The Effects of Combination Therapies on the HIV/AIDS Transition*

- GlaxoWellcome Research Conference, Chapel Hill, NC

*Long Term Economic Consequences of Combination Therapies for HIV/AIDS*

- GlaxoWellcome Research, Research Triangle Park, NC

**1997-1998**

*The Health Care Consequences of Tobacco Regulation*

- Faculty Seminar, Economics Dept., Dartmouth College, Hanover, NH
- Faculty Seminar, School of Public Health, Boston University, Boston, MA

*The Social Consequences of Alcohol Taxation*

- NIAAA Conference on Alcohol Abuse, San Francisco, CA



1998-1999

*Environmental Risk: Assessment, Valuation, and Management*

- UCSanta Barbara, Donald Bren School of the Environment, Faculty Research Seminar
- Short Term Consequences of Abortion Funding Cutoffs*
- NBER Summer Research Institute

1999-2000

*The Health Care Consequences of Tobacco Regulation*

- Seminar in Health Economics, CUNY/NBER
- UWMadison Health Policy Center
- RAND Health Economics Seminar, Santa Monica, CA
- Stanford Medical School, Dept. of Health Policy, Stanford University
- Conference on Frontiers in Health Policy, NBER, Washington, DC

*Habit and Heterogeneity in the Youthful Demand for Alcohol*

- NBER Spring Meetings, Cambridge, MA

*Environment and Persistence in the Youthful Demand for Alcohol:*

- NBER Conference on Risky Behavior and Youth
- NBER Spring Health Care Meetings
- UWMadison Health Policy Center
- University of Chicago, Harris School of Public Policy, Health Policy Research Seminar
- University of Chicago, Department of Economics, Applied Microeconomics Workshop
- Western Economic Association Annual Meetings

*The Political Economy of Workplace Smoking*

- University of Chicago, Graduate School of Business, Economics and Legal Organization Workshop

2000-2001

*Environment and Persistence in the Youthful Demand for Alcohol:*

- International Health Economics Association Meetings, York, UK

*The Political Economy of Workplace Smoking*

- School of Policy Studies, Cornell University.
- International Health Economics Association Meetings, York, UK
- Maxwell School of Public Policy, Syracuse University

*Is Binge Drinking Rational?*

- International Health Economics Association Meetings, York, UK

2002-2003

*The Political Economy of Workplace Smoking.*

- NBER/CUNY Graduate Center

*Napsterizing Pharmaceuticals: Access, Innovation, and Consumer Welfare*

- FTC Hearings on Antitrust and Intellectual Property
- Congressional Staff Briefing
- Applications of Economics/Economic and Legal Organization, University of Chicago

*Cargo Cult Econometrics*

- Darden School of Business, University of Virginia
- PIMS Conference in honor of Robert Buzzell

*Competitive Response to Entry*

- PIMS Conference in honor of Robert Buzzell

## Exhibit 2

**Record of Testimony, 2001-2005**  
**Michael J. Moore**

Ambrose v. Permanent General (2001)  
Retained by Neal Harwell (Nashville, TN)  
Affidavit and Deposition  
Case settled

Certain Land in the City of Detroit (2001)  
Retained by Honigman Schwartz (Detroit, MI)  
Affidavit  
Case settled

Baugh, et al., v. Union Pacific Corporation (2004)  
Retained by Davis, Graham, and Stubbs (Denver, CO)  
Affidavit  
Case dismissed

Tribune Company v. Commissioner (2004)  
United States Tax Court, Docket No. 17443-02  
Los Angeles, CA  
Retained by Mayer Brown Rowe and Maw (Chicago, IL)  
Affidavit and Testimony

Guardian Life Insurance Co., Inc. v. Canada Life Insurance (2004)  
Retained by Chadbourne and Park (Washington, DC)  
Affidavit and Deposition

Department of Revenue, State of Illinois v. Provena Covenant Medical Center (2004)  
Department of Revenue, State of Illinois, Docket # 04-PT-0014  
Retained by Gardner Carton & Douglas (Chicago, IL)  
Affidavit

### **Exhibit 3**

## Materials Reviewed

- Anheuser-Busch Companies, Inc. (2005), "Beverage Consumption Trends and Sales," document source [http://www.progressivegrocer.com/progressivegrocer/profitguides/beer/images/pdf/consumption\\_trends.pdf](http://www.progressivegrocer.com/progressivegrocer/profitguides/beer/images/pdf/consumption_trends.pdf), (June 27, 2005 download date).
- Atkinson, A. B. and Stiglitz, J. E. (1980), *Lectures in Public Economics*, London: McGraw-Hill.
- California Retail Liquor Dealers Association v. Midcal Aluminum, Inc.* (1980), 445 U.S. 97, 100 S. Ct. 937.
- California State Board of Equalization (1999), "Appendix, 1997-98 Annual Report," document source <http://www.boe.ca.gov/pdf/98tables.pdf>, (June 29, 2005 download date).
- California State Board of Equalization (2004), "Alcoholic Beverage Tax," document source <http://www.boe.ca.gov/pdf/pub92.pdf>, (June 29, 2005 download date).
- The Center on Alcohol Marketing and Youth (2003), "Alcohol Advertising and Youth," (November), document source <http://camy.org/factsheets/print.php?FactsheetID=1>, (June 24, 2005 download date).
- Chaloupka, F. J., Saffer, H. and Grossman, M. (1993), "Alcohol-Control Policies and Motor-Vehicle Fatalities," *Journal of Legal Studies*, University of Chicago Press, 22:1, 161-86.
- Cook, P. J. and Tauchen, G. (1982), "The Effect of Liquor Taxes on Heavy Drinking," *The Bell Journal of Economics*, 13:2 (Autumn), 379-390.
- Cook, P. J. and Moore, M. J. (2000), "Alcohol," in Culyer, A. J. and Newhouse, J. P., eds., *Handbook of Health Economics*, vol. 1B, New York: North-Holland, 1629-1673.
- Cook, P. J. and Moore, M. J. (2001), "Environment and Persistence in Youthful Drinking Patterns," in Gruber, J., ed., *Risky Behavior Among Youths: An Economic Analysis*, Chicago: University of Chicago Press, 375-437.
- Dee, T. S. (1999), "State Alcohol Policies, Teen Drinking and Traffic Fatalities," *Journal of Public Economics*, 72:2 (May), 289-315.

- Dee, T. S. and Evans, W. N. (2001), "Teens and Traffic Safety," in Gruber, J., ed., *Risky Behavior Among Youths: An Economic Analysis*, Chicago: University of Chicago Press, 121-165.
- Ellis, M. and Laine, S. (2005), "Binge Drinking on Campus Lower in States with Fewer Adult Binge Drinkers and Stronger Alcohol Control Laws," The Robert Wood Johnson Foundation (February), document source <http://www.rwjf.org/newsroom/newsreleasesdetail.jsp?id=10336>, (June 30, 2005 download date).
- Expert Report of Frank J. Chaloupka (2005), *Costco Wholesale Corporation v. Roger Hoen, et al.* June 3, 2005.
- Expert Report of Keith Leffler (2005), *Costco Wholesale Corporation v. Roger Hoen, et al.* June 3, 2005.
- Expert Report of Kenneth L. Casavant (2005), *Costco Wholesale Corporation v. Roger Hoen, et al.* June 3, 2005.
- Expert Report of William J. Rorabaugh (2005), *Costco Wholesale Corporation v. Roger Hoen, et al.* June 2, 2005.
- Federal Trade Commission (1999), "Self-Regulation in the Alcohol Industry: A Review of Industry Efforts to Avoid Promoting Alcohol to Underage Consumers," (September), document source <http://www.ftc.gov/reports/alcohol/alcoholreport.htm>, (June 24, 2005 download date).
- Fisher, F. M. (1985), "The Social Costs of Monopoly and Regulation: Posner Reconsidered," *Journal of Political Economy*, 93:2 (April), 410-16.
- Fleener, P. (1999), "How Excise Tax Differentials Affect Cross-Border Sales Of Beer in the United States," Tax Foundation 31 (May).
- Gifford, S. L. (2002), "Justice Expenditure and Employment in the United States, 1999," Bureau of Justice Statistics, Bulletin No. NCJ 191746, (February).
- Greene, W. H. (2003), *Econometric Analysis*, Fifth Edition, Upper Saddle River, New Jersey: Prentice Hall.
- Hasin D., Li Q., McCloud S. and Endicott, J. (1996), "Agreement Between DSM-III, DSM-III-R, DSM-IV and ICD-10 Alcohol Diagnoses in US Community-Sample Heavy Drinkers," *Addiction*, 91:10, 1517-1527.

- Hingson, R., Heeren, T., Winter, M. and Wechsler, H. (2003), "Early Age of First Drunkenness as a Factor in College Students' Unplanned and Unprotected Sex Attributable to Drinking," *Pediatrics*, 111:1, 34-41.
- Kenkel, D. S. (1996), "New Estimates of the Optimal Tax on Alcohol," *Economic Inquiry*, 34:2 (April), 296-319.
- Kennedy, P. (2003), *A Guide to Econometrics*, Fifth Edition, Cambridge, Massachusetts: The MIT Press.
- Kotlikoff, L. J. and Summers, L. H. (1987), "Tax Incidence," Chapter 16 in Auerbach, A.J. and Feldstein, M., eds., *Handbook of Public Economics*, vol. II, Elsevier Science Publishers B.V. North-Holland 1043 – 1092.
- Lakins, N. E., Williams, G. D., Yi, H. and Smothers, B. A. (2004), "Apparent Per Capita Alcohol Consumption: National, State, and Regional Trends, 1977-2002," National Institute on Alcohol Abuse and Alcoholism Research Surveillance Report #66, (August), 1-38. With dataset: pcyr1970-2002.txt, document source <http://www.niaaa.nih.gov/publications/surveillance66/pcyr1970-2002.txt>, (June 30, 2005 download date).
- Leung, S. F. and Phelps, C. E. (1993), "My Kingdom for a Drink ... ? : A Review of Estimates of the Price Sensitivity of Demand for Alcoholic Beverages," in Hilton, M.E. and Bloss, G., eds., *Economics and the Prevention of Alcohol-Related Problems: Proceedings of a Workshop on Economic and Socioeconomic Issues in the Prevention of Alcohol-Related Problems, October 10-11, 1991, Bethesda, MD*, National Institute on Alcohol Abuse and Alcoholism Research Monograph No. 25.
- Louis Finocchiaro, Inc. v. Nebraska Liquor Control Commission* (1984), 217 Neb. 487, 351 N.W.2d 701.
- Manning, W. G., Keeler, E. B., Newhouse, J. P., Sloss, E. M. and Wasserman, J. (1989), "The Taxes of Sin: Do Smokers and Drinkers Pay Their Way?" *Journal of the American Medical Association*, 261:11, 1604-1609.
- Manning, W. G., Blumberg, L. and Moulton, L. (1995), "The Demand for Alcohol: The Differential Response to Price," *Journal of Health Economics*, 14:2, 123-148.
- Markowitz, S., Kaestner, R. and Grossman, M. (2005), "An Investigation of the Effects of Alcohol Consumption and Alcohol Policies on Youth Risky Sexual Behaviors," National Bureau of Economic Research, Inc, NBER Working Papers: 11378.

- McKnight, A.J. and Streff, F.M. (1994), "The Effect of Enforcement Upon Service of Alcohol to Intoxicated Patrons of Bars and Restaurants," *Accident Analysis and Prevention*, 26:1;79-88.
- National Highway Traffic Safety Administration, Fatal Accident Reporting System (2005), document source <http://www-fars.nhtsa.dot.gov/FinalReport.cfm?stateid=0&title=states&title2=alcohol&year=2003>, (June 30, 2005 download date).
- National Institute on Alcohol Abuse and Alcoholism (2000), *10th Special Report to the U.S. Congress on Alcohol and Health*, Bethesda, MD: U.S. Department of Health and Human Services.
- Nelson, J. P. (1997), "Economic and Demographic Factors in U.S. Alcohol Demand: A Growth-Accounting Analysis," *Empirical Economics*, 22:1, 83-102.
- Perry, C.L., Williams, C.L., Veblen-Mortenson, S., Toomey, T.L., Komro, K.A., Anstine, P.S., McGovern, P.G., Finnegan, J.R., Forster, J.L., Wagenaar, A.C. and Wolfson, M. (1996), "Project Northland: Outcomes of a Communitywide Alcohol Use Prevention Program During Early Adolescence," *American Journal of Public Health*, 86:7 (July), 956-965.
- Posner, R. A. (1975), "The Social Costs of Monopoly and Regulation," *Journal of Political Economy*, 83:4 (August), 807-27.
- Stigler, G. J. (1968), "Price and Non-Price Competition," *Journal of Political Economy*, 76:1 (Jan.-Feb.), 149-154.
- Stigler, G. J. (1971), "The Theory of Economic Regulation," *The Bell Journal of Economics and Management Science*, 2:1 (Spring), 3-21.
- Revised Code of Washington (2005), Title 66 – "Alcoholic Beverage Control," Chapter 66.28 – "Miscellaneous Regulatory Provisions," Section 66.28.180 "Price modification by certain persons, firms, or corporations – Board notification and approval – Intent – Price posting – Price filing, contracts, memoranda."
- Washington State Legislature (2004), *Revised Code of Washington*, Title 314 – "Liquor Control Board," Chapter 12.140 – "Prohibited practices—Contracts—Gifts—Rebates, etc."
- Washington State Liquor Control Board (2002), *Annual Report Fiscal Year 2002*, Washington State Liquor Control Board.



Washington State Liquor Control Board (2003), "Prohibited Practices: Non-Retail & Retail Relationships," (Bates: WBW\_101688-WBW\_101689).

Washington State Liquor Control Board (2005), "List of Licenses, Permits and Fees," document source [http://www.liq.wa.gov/licensing/license\\_fees.asp](http://www.liq.wa.gov/licensing/license_fees.asp), (June 30, 2005 download date).

**Exhibit 4**

## Washington Regulations

### Revised Code of Washington (RCW)

- 66.24.170(3) Any domestic winery licensed under this section may also act as a distributor and/or retailer of wine of its own production...
- 66.28.070(1) ... it shall be unlawful for any retail beer or wine licensee to purchase beer or wine, except from a duly licensed wholesaler or the board, and it shall be unlawful for any brewer, winery, or beer or wine wholesaler to purchase beer or wine, except from a duly licensed beer or wine wholesaler or importer.
- 66.28.010(1)(a) ... no manufacturer, importer, or distributor shall advance moneys or moneys' worth to a licensed person under an arrangement, nor shall such licensed person receive, under an arrangement, an advance of moneys or moneys' worth...
- 66.28.010(2) ... manufacturers, distributors, and importers may perform, and retailers may accept the service of building, rotating and restocking case displays and stock room inventories; rotating and rearranging can and bottle displays of their own products; provide point of sale material and brand signs; price case goods of their own brands; and perform such similar normal business services as the board may by regulation prescribe.
- 66.28.170 It is unlawful for a manufacturer of wine or malt beverages... or the manufacturer's authorized representative, a brewery, or a domestic winery to discriminate in price in selling to any purchaser for resale in the state of Washington.
- 66.28.180 It is unlawful for a person, firm, or corporation holding a certificate of approval issued under RCW 66.24.270 or 66.24.206, a beer distributor's license, a domestic brewery license, a microbrewery license, a beer importer's license, a beer distributor's license, a domestic winery license, a wine importer's license, or a wine distributor's license within the state of Washington to modify any prices without prior notification to and approval of the board.
- 66.28.180(2)(c) No beer and/or wine distributor may sell or offer to sell any package or container of beer or wine to any retail licensee at a price differing from the price for such package or container as shown in the price posting filed by the beer and/or wine distributor and then in effect, according to rules adopted by the board.
- 66.28.180(2)(d) Quantity discounts are prohibited. No price may be posted that is below acquisition cost plus ten percent of acquisition cost...
- 66.28.180(2)(h)(ii) Beer and wine sold as provided in this section shall be delivered by the distributor or an authorized employee either to the retailer's licensed premises or directly to the retailer at the distributor's licensed premises. A distributor's prices to retail licensees shall be the same at both such places of delivery.
- 66.28.180(3)(a) Every domestic brewery, microbrewery, and domestic winery offering beer and/or wine for sale within the state shall file with the board at its office in Olympia a copy of every written contract and a memorandum of every oral agreement which such brewery or winery may have with any beer or wine distributor, which contracts or memoranda shall contain a schedule of prices charged to distributors for all items and all terms of sale, including all regular and special discounts; all advertising, sales and trade allowances, and incentive programs; and all commissions, bonuses or gifts, and any and all other discounts or allowances...
- 66.28.180(3)(b) Prices filed by a domestic brewery, microbrewery, domestic winery, or certificate of approval holder shall be uniform prices to all distributors on a statewide basis less bona fide allowances for freight differentials. Quantity discounts are prohibited. No price shall be filed that is below acquisition/production cost plus ten percent of that cost...

**Washington Administrative Code (WAC)**

- 314-20-100(2)(a) Beer supplier filing deadlines -- All price postings, distributor appointments, written contracts, and memoranda of oral agreements must be received by the board not later than the twenty-fifth day of the month, and if approved will become effective on the first day of the second calendar month following the date of filing.
- 314-20-100(2)(b) Beer distributor filing deadlines -- All price postings must be received by the board not later than the tenth day of the month, and if approved will become effective on the first day of the calendar month following the date of filing.
- 314-20-100(5) Temporary price reductions -- If a beer supplier or distributor files price postings that list selected items on which prices are temporarily reduced for one posting period only, these price postings must clearly reflect all items, the selling price, and the posting period for which the price reductions will be in effect. At the expiration of the posting period during which the reductions were in effect, the special price posting will become void and the last regularly filed and effective price posting will again become effective.
- 314-24-190(2)(a) Wine supplier filing deadlines -- All price postings, distributor appointments, written contracts, and memoranda of oral agreements must be received by the board not later than the twenty-fifth day of the month, and if approved will become effective on the first day of the second calendar month following the date of filing.
- 314-24-190(2)(b) Wine distributor filing deadlines -- All price postings must be received by the board not later than the tenth day of the month, and if approved will become effective on the first day of the calendar month following the date of filing.
- 314-24-190(5) Temporary price reductions -- If a wine supplier or distributor files price postings that list selected items on which prices are temporarily reduced for one posting period only, these price postings must clearly reflect all items, the selling price, and the posting period for which the price reductions will be in effect. At the expiration of the posting period during which the reductions were in effect, the special price posting will become void and the last regularly filed and effective price posting will again become effective.
- 314-13-015 ... a retail licensee must pay cash for beer and wine prior to or at the time of delivery by a distributor, brewery, or winery...
- 314-36-020 No liquor shall be imported into this state unless such liquor be consigned to the Washington state liquor control board; or unless such liquor be consigned to a holder of a liquor, beer or wine importer's license and delivered at a public storage warehouse authorized by the Washington state liquor control board to store liquor, or at the warehouse of the holder of the liquor, beer or wine importer's license in those cases where the board has authorized storage at such warehouse. No carrier shall accept or deliver liquor except in accordance with this regulation.

**Exhibit 5**

## Changes in Consumer Surplus, Transfers and Efficiency Losses

	Wine	Beer	Total Wine and Beer
Price elasticity estimates <sup>(1)</sup>	-1.0	-0.3	
Price per 750 ml bottle of wine and 6 pack of beer <sup>(2)</sup>	\$7.50	\$7.50	
Price per gallon of beverage <sup>(3)</sup>	\$37.85	\$13.33	
Washington consumption in gallons of beverage (2002) <sup>(4)</sup>	16,152,000	117,788,000	
New price per 750 ml bottle for wine and 6 pack for beer <sup>(5)</sup>	\$7.88	\$7.88	
New price per gallon of beverage <sup>(6)</sup>	\$39.75	\$14.00	
New Washington consumption level in gallons of beverage <sup>(7)</sup>	15,344,400	116,021,180	
Transfers <sup>(8)</sup>	\$29,042,436	\$77,347,453	\$106,389,890
Efficiency losses <sup>(9)</sup>	\$764,275	\$588,940	\$1,353,215
Changes in Consumer Surplus <sup>(10)</sup>	\$29,806,711	\$77,936,393	\$107,743,104

### Notes:

(1) Price elasticity estimates for beer and wine from Leung and Phelps (1993).

(2) Price per 750 ml bottle of wine and 6 pack of 12 oz containers of beer from Table "Average Price of Wine and Beer in U.S., May 2005 Dollars" in this exhibit.

(3) Price per gallon of beverage calculated as follows. For wine, price per gallon = price per 750 ml bottle \* 1/750 bottles/ml \* 29.5735297 ml/oz \* 128 oz/gallon. For beer, price per gallon = price per 6 pack of 12 oz containers \* 1/72 6 packs/oz \* 128 oz/gallon. All calculations performed with all available digits. Displayed numbers rounded.

(4) Washington consumption in gallons of beverage from National Institute on Alcohol Abuse and Alcoholism's apparent consumption data. See Lakins, *et al.* (2004) p. 16.

(5) New price is 5% higher than the original price.

(6) New price per gallon of beverage calculated as above in (3).

(7) New Washington consumption level in gallons is calculated assuming a linear demand that intersects the original price/consumption point and at that point has the assumed elasticity. The slope of that demand function is the elasticity multiplied by the consumption then divided by the price. The intercept is slope multiplied by the price then subtracted from the consumption. That is, if the demand function is  $Q = a + b * P$ , and elasticity is  $e$ , then  $b = e * Q / P$  and  $a = Q - b * P$ . To find the new consumption, evaluate the demand function at the new price.

(8) Transfers equal the new Washington consumption level multiplied by the change in price per gallon.

(9) Efficiency losses equal one half the change in prices multiplied by the change in consumption.

(10) Change in consumer surplus equals the sum of the transfers and welfare losses.

**Average Price of Wine and Beer in U.S., May 2005 Dollars**

	Wine <sup>(1)</sup>	Beer <sup>(2)</sup>
Sales quantity <sup>(3)</sup>	257,501	2,807,000
Sales value, 2005 dollars <sup>(4)</sup>	\$22,926,522	\$82,514,348
Price <sup>(5)</sup>	\$7.42	\$7.35

**Notes:**

(1) Wine quantity in thousands of 9 liter cases (9 liters = 2.378 gallons). One case contains twelve 750 ml bottles. Wine price per 750 ml bottle.

(2) Beer quantity in thousands of 2.25 gallon cases. One case contains 24 12 oz containers. Beer price per 6 pack.

(3) Quantity data in thousands of cases, and it represents 2003 sales in U.S. for on- and off-premises consumption. Source: Anheuser-Busch Companies, Inc. (2005), p. 12.

(4) Sales value in thousands of May 2005 dollars. Sales value transformed from 2003 dollars using non-seasonally adjusted Consumer Price Index data (U.S. city average, all items) from the Bureau of Labor Statistics. Sales value calculated from Anheuser-Busch Companies, Inc. (2005), p. 2.

(5) Price per 750 ml bottle of wine, 6 pack of 12 oz containers of beer. This number represents the 2003 average price in May 2005 price levels per bottle of wine or 6 pack of beer for all wine and beer sold in the U.S., for on- and off-premise consumption.

**Exhibit 6**



# Changes in Consumer Surplus, Transfers and Efficiency Losses, Sensitivity Analysis

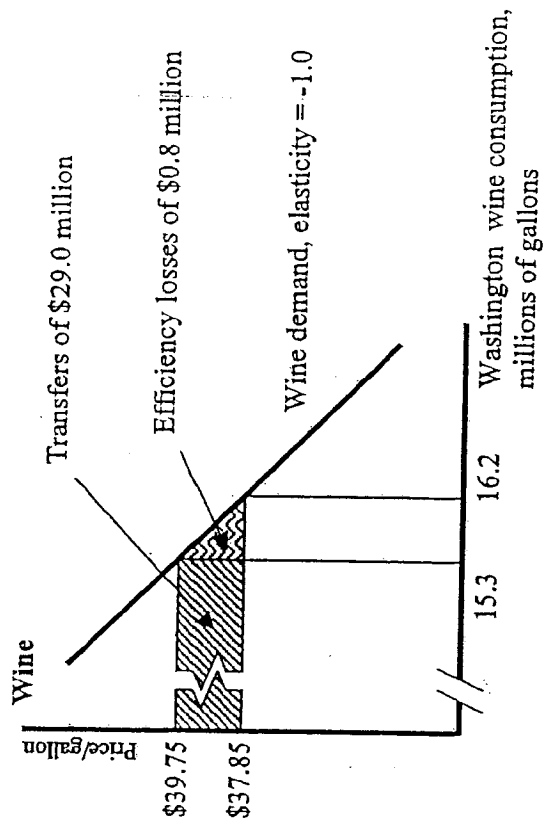
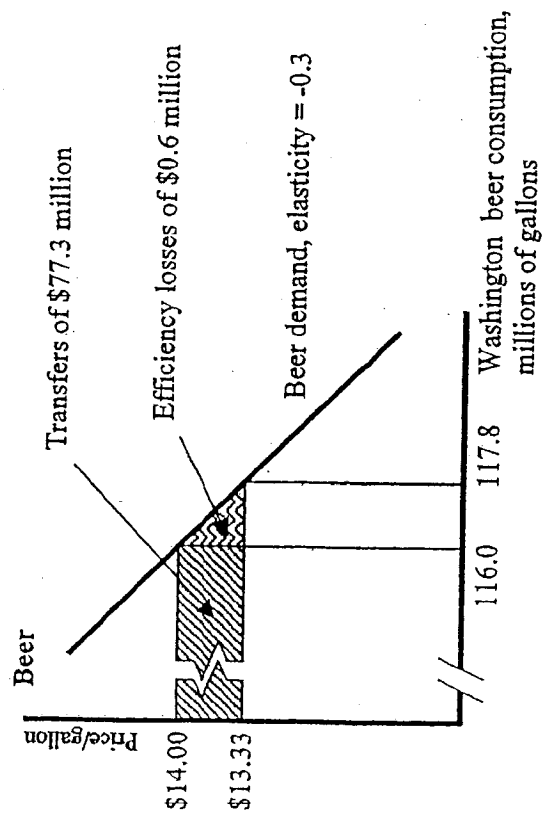
Price Level <sup>(1)</sup>	Low	Medium	High	Low	Medium	High
Source of Elasticities Used	Leung and Phelps (1993) <sup>(2)</sup>			Nelson (1997) <sup>(3)</sup>		
	Beer			Beer		
Price per 6 Pack <sup>(4)</sup>	\$6.50	\$7.50 <sup>(4)</sup>	\$8.50	\$6.50	\$7.50 <sup>(4)</sup>	\$8.50
Changes in Consumer Surplus (in millions of 2005 dollars) <sup>(6)</sup>	\$67.5	\$77.9	\$88.3	\$67.8	\$78.2	\$88.6
Transfers (net of efficiency losses, in millions of 2005 dollars) <sup>(6)</sup>	\$67.0	\$77.3	\$87.7	\$67.5	\$77.9	\$88.3
	Wine			Wine		
Price per 750 ml Bottle <sup>(5)</sup>	\$5.50	\$7.50 <sup>(5)</sup>	\$9.50	\$5.50	\$7.50 <sup>(5)</sup>	\$9.50
Changes in Consumer Surplus (in millions of 2005 dollars) <sup>(6)</sup>	\$21.9	\$29.8	\$37.8	\$22.1	\$30.2	\$38.2
Transfers (net of efficiency losses, in millions of 2005 dollars) <sup>(6)</sup>	\$21.3	\$29.0	\$36.8	\$21.8	\$29.8	\$37.7
	Total Beer and Wine			Total Beer and Wine		
Changes in Consumer Surplus (in millions of 2005 dollars) <sup>(6)</sup>	\$89.4	\$107.7	\$126.1	\$89.9	\$108.4	\$126.9
Transfers (net of efficiency losses, in millions of 2005 dollars) <sup>(6)</sup>	\$88.3	\$106.4	\$124.4	\$89.3	\$107.7	\$126.0

## Notes:

- (1) The price levels differ by +/- \$1 for beer and +/- \$2 for wine.
- (2) Leung and Phelps (1993) estimate elasticities of -0.3 for beer and -1.0 for wine.
- (3) Nelson (1997) estimates conditional elasticities of -0.16 for beer and -0.52 for wine (see Nelson (1997), p. 96). Conditional elasticities are computed from conditional demand. "The conditional (within group) demand function for a good contains only the prices of the goods belonging to the same group and real expenditures for that group" (see Nelson (1997), p. 89). All alcohol beverages comprise one group.
- (4) Medium price of beer is \$7.50 per 6 pack of 12 oz containers, which is approximately equal the average price for beer calculated in Exhibit 5.
- (5) Medium price of wine is \$7.50 per 750 ml bottle, which is approximately equal the average price for wine calculated in Exhibit 5.
- (6) Changes in consumer surplus and transfers are calculated as in Exhibit 5. Amounts in millions of 2005 dollars. Beer and wine components may not add up to their sum because of rounding.

## Exhibit 7

# Changes in Consumer Surplus, Transfers and Efficiency Losses – Graphical Examples for Beer and Wine



**Notes:**  
 Elasticities from Leung and Phelps (1993), -0.3 for beer and -1.0 for wine.  
 Dollar values are in May 2005 dollars.  
 Prices, quantities and values of transfers and efficiency losses of are drawn from Exhibit 5.

## Exhibit 8

# Nebraska per Capita Consumption Regressions by Beverage Type

	Variable Definition	Mean		Beer <sup>(5)</sup>		Wine <sup>(5)</sup>		Spirits <sup>(5)</sup>	
		Standard Deviation	Mean	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Nebraska Beer Consumption <sup>(1)</sup>	Per capita gallons of ethanol from beer, age 14+	0.067	1.407	Dependent Variable		-		-	
Nebraska Wine Consumption <sup>(1)</sup>	Per capita gallons of ethanol from wine, age 14+	0.029	0.184	-		Dependent Variable		-	
Nebraska Spirits Consumption <sup>(1)</sup>	Per capita gallons of ethanol from spirits, age 14+	0.168	0.745	-		-		Dependent Variable	
Trend	1 for 1970, 2 for 1971, etc.		17.000	-0.012**	0.005	0.005*	0.001	-0.014	0.008
U.S. Beer Consumption <sup>(2)</sup>	Per capita gallons of ethanol from beer, age 14+	0.069	1.278	1.214*	0.192	-		-	
U.S. Wine Consumption <sup>(2)</sup>	Per capita gallons of ethanol from wine, age 14+	0.031	0.322	-		0.269**	0.129	-	
U.S. Spirits Consumption <sup>(2)</sup>	Per capita gallons of ethanol from spirits, age 14+	0.193	0.866	-		-		1.055*	0.235
Beer Tax <sup>(3)</sup>	Real dollars, Nebraska beer excise tax on 1 oz of ethanol (year 1982-1984 dollars)	0.005	0.029	-5.920*	1.914	-		-	
Wine Tax <sup>(3)</sup>	Real dollars, Nebraska wine excise tax on 1 oz of ethanol (year 1982-1984 dollars)	0.022	0.045	-		-0.298	0.178	-	
Spirits Tax <sup>(3)</sup>	Real dollars, Nebraska spirits excise tax on 1 oz of ethanol (year 1982-1984 dollars)	0.016	0.052	-		-		-1.440	2.975
Policy Indicator <sup>(4)</sup>	0 for years < 1984, 7/12 for year 1984, and 1 for years > 1984	0.496	0.563	-0.352*	0.071	0.096*	0.027	-0.251	0.073
Policy * Trend	Interaction of Policy and Trend variables	12.792	13.629	0.021*	0.006	-0.007*	0.002	0.022*	0.005
Constant	Regression Intercept	0.000	1.000	0.137	0.216	0.070	0.040	-0.011	0.341
Adjusted R <sup>2</sup> (goodness of fit)				0.893		0.717		0.936	
Number of Observations				33		33		33	
F Test (tests whether the regression is statistically significant)				54.400	0.000	17.200	0.000	94.880	0.000
Actual Consumption, Nebraska, 2002				1.450		0.170		0.610	
Predicted Consumption, Nebraska, 2002				1.117		0.315		0.167	
Difference, Nebraska, 2002				0.333		-0.145		0.443	

**Notes:**

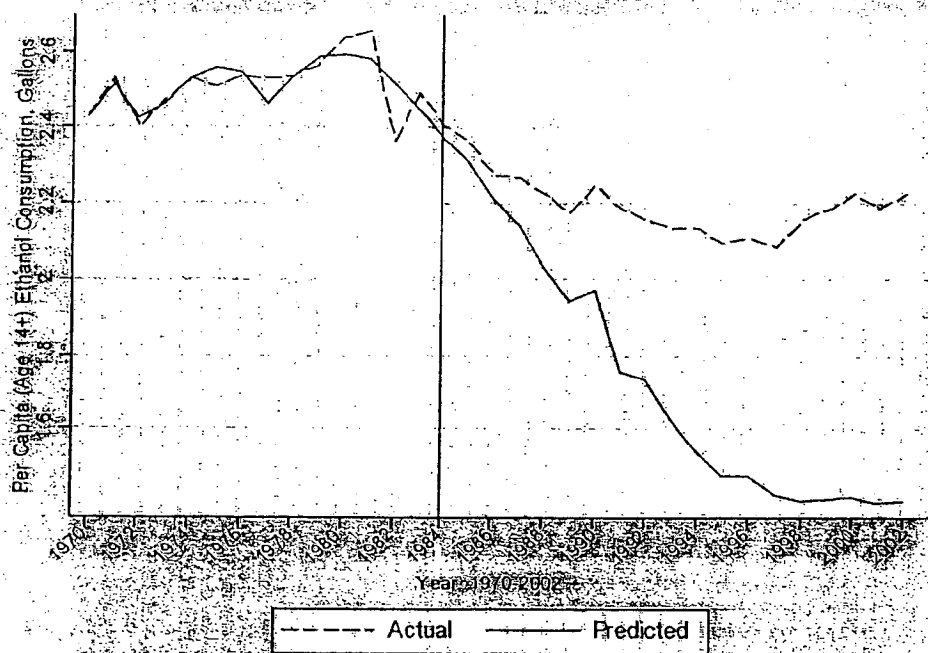
- \* Estimated coefficient is statistically significant at the 1% level, two-tailed test.
- \*\* Estimated coefficient is statistically significant at the 5% level, two-tailed test.

- (1) Nebraska per capita (age 14+) consumption of ethanol from beer, wine and spirits is measured in gallons per year and drawn from the file nebraska\_data.xls, containing data provided by defense counsel on June 22, 2005.
- (2) U.S. per capita (age 14+) consumption of ethanol from beer, wine and spirits is measured in gallons per year and drawn from the file nebraska\_data.xls, containing data provided by defense counsel on June 22, 2005.
- (3) Beer, wine and spirits real excise taxes are drawn from the file nebraska\_data.xls, containing data provided by defense counsel on June 22, 2005.
- (4) The policy indicator variable equals zero before the Supreme Court of Nebraska struck down quantity discounts and price postings by distributors for wine and spirits on June 1, 1984 (*Louis Finocchiaro, Inc. v. Nebraska Liquor Control Commission* (1984)). The policy indicator variable equals 7/12 in 1984, because the policy was in effect for seven months that year. The policy indicator variable equals one thereafter.
- (5) Beer, wine and spirits regressions are the same as Professor Chaloupka's Model 1 regressions for Delaware and Nebraska, except that instead of using all ethanol consumption for Nebraska and U.S. and the average ethanol tax, the ethanol consumption for only one beverage and the ethanol tax for that beverage was used in each regression. See Expert Report of Frank J. Chaloupka (2005) ¶44.

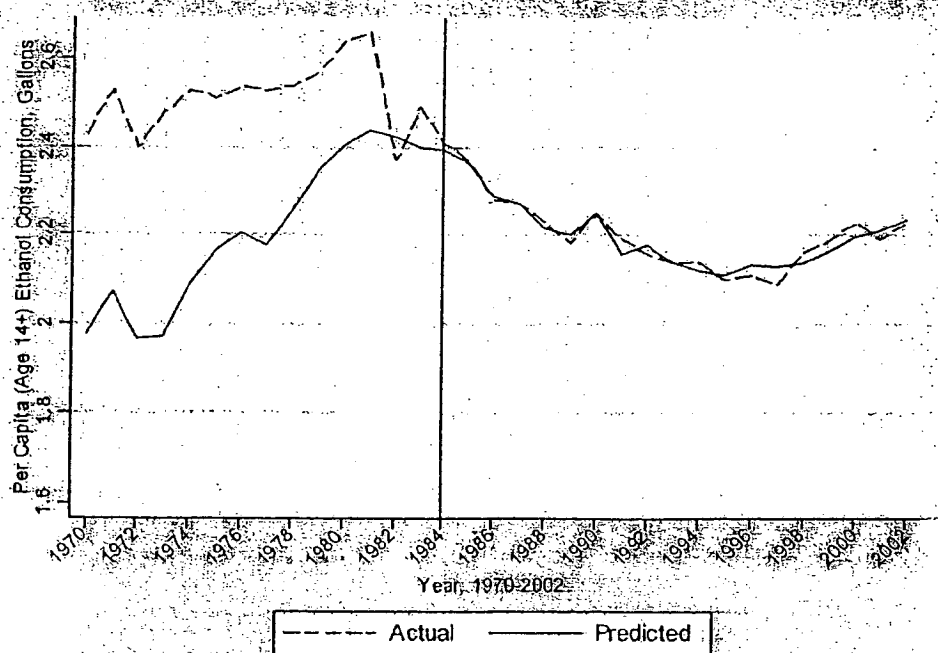
## Exhibit 9

# Nebraska Ethanol Consumption, Model 1

Forecast<sup>(1)</sup>



Backcast<sup>(2)</sup>





**Notes:**

(1) Estimation sample includes the years 1970-1983. The remainder of the sample (years 1984-2002) is then used for predicting the but-for Nebraska per capita (age 14+) ethanol consumption in gallons. The forecast predicts what consumption would have been in the years 1984-2002, allowing the control variables to take on their actual values but restricting the coefficients to be the same as in the estimation sample. The vertical line at year 1984 indicates the year of policy change.

(2) Estimation sample includes the years 1985-2002. The remainder of the sample (years 1970-1984) is then used for predicting the but-for Nebraska per capita (age 14+) ethanol consumption in gallons. The forecast predicts what consumption would have been in the years 1970-1984, allowing the control variables to take on their actual values but restricting the coefficients to be the same as in the estimation sample. The vertical line at year 1984 indicates the year of policy change.

**Exhibit 10**

# California per Capita Consumption Regressions

	Variable Definition	Mean	Standard Deviation	Model 1 <sup>(5)</sup>		Model 3 <sup>(5)</sup>	
				Coefficient	Standard Error	Coefficient	Standard Error
California Consumption <sup>(1)</sup>	Per capita gallons of ethanol, age 14+	2.850	0.474				
Trend	1 for 1970, 2 for 1971, etc.	17.000	9.670	-0.019*	0.006	-0.018	0.010
U.S. Consumption <sup>(2)</sup>	Per capita gallons of ethanol, age 14+	2.467	0.228	1.419*	0.111	1.375*	0.380
Alcohol Tax <sup>(3)</sup>	Real dollars, ethanol consumption weighted, California excise tax on 1 oz of ethanol (year 1982-1984 dollars)	0.025	0.010				
Policy Indicator <sup>(4)</sup>	0 for years < 1980, 10/12 for year 1980, and 1 for years > 1980	0.692	0.464	-6.005*	2.032	-5.989*	2.075
Policy * Trend	Interaction of Policy and Trend variables	15.278	11.732	-0.092	0.086	-0.212	1.009
Policy * U.S. Consumption	Interaction of Policy and U.S. Consumption variables	1.652	1.121	0.003	0.008	0.002	0.011
Constant	Regression Intercept	1.000	0.000	-0.154	0.346	0.047	0.393
				-0.045	0.976		
Adjusted R <sup>2</sup> (goodness of fit)				0.995		0.995	
Number of Observations				33		33	
Breusch-Pagan/Cook-Weisberg Test (detects heteroskedasticity)							
		Test Statistic	P Value	Test Statistic	P Value		
Durbin-Watson Statistic (detects autocorrelation)		0.410	0.521	0.410	0.522		
F Test (tests whether the regression is statistically significant)		1.982		1.978			
F Test of Policy Variables (test whether the policy variables are jointly statistically significant; ndf = 2, ddf = 27)		1219.300	0.000	978.990	0.000		
		2.010	0.153	1.300	0.296		
Gallons of Ethanol per Capita, California, 2002							
Actual Consumption, California, 2002		2.197		2.197			
Predicted Consumption, California, 2002		2.206		2.252			
Difference, California, 2002		-0.009		-0.055			

**Notes:**

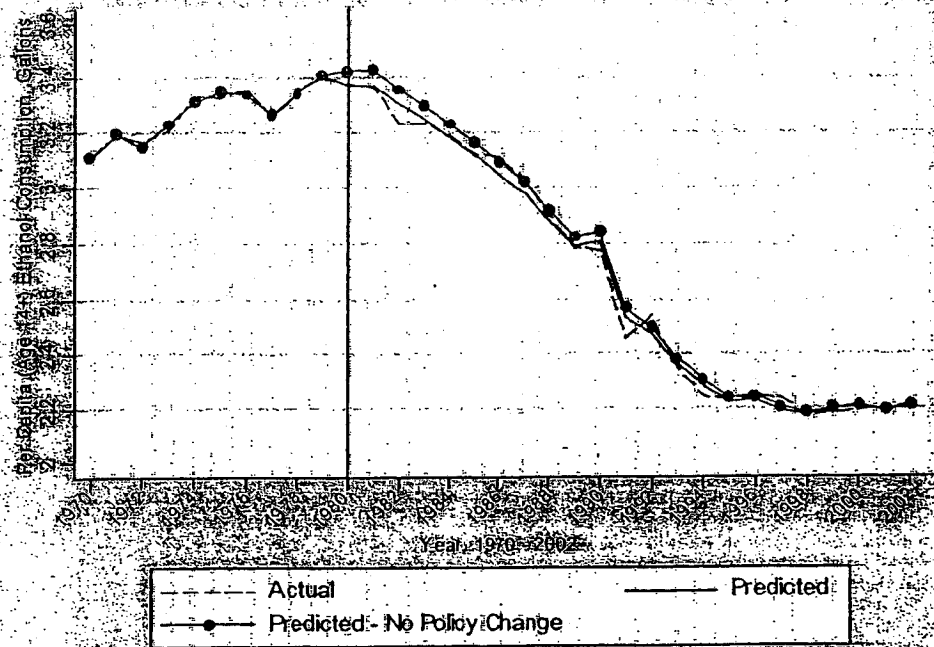
\* Estimated coefficient is statistically significant at the 1% level, two-tailed test.

\*\* Estimated coefficient is statistically significant at the 5% level, two-tailed test.

- (1) California per capita (age 14+) consumption of ethanol is measured in gallons per year and is drawn from the National Institute on Alcohol Abuse and Alcoholism apparent consumption data. See Lakins, *et al.* (2004).
- (2) U.S. per capita (age 14+) consumption of ethanol is measured in gallons per year and is drawn from the National Institute on Alcohol Abuse and Alcoholism apparent consumption data. See Lakins, *et al.* (2004).
- (3) Alcohol tax is a measure of the real level of the California excise tax on ethanol. The tax is computed by weighting the spirits, beer and wine excise taxes according to their share in total ethanol consumption each year. California excise tax data were drawn from Table 27 in California State Board of Equalization (1999), and California State Board of Equalization (2004). The tax is then deflated using non-seasonally adjusted Consumer Price Index data (U.S. city average, all items, base period: 1982-84 = 100) from the Bureau of Labor Statistics.
- (4) The policy indicator variable equals zero before the Supreme Court of the United States upheld the Injunction against California's wine pricing system on March 3, 1980 (*California Retail Liquor Dealers Association v. Midcal Aluminum, Inc.* (1980)). The policy indicator variable equals 10/12 in 1980, because the policy was in effect for ten months that year. The policy indicator variable equals one thereafter.
- (5) Model 1 and 3 regressions are the same as Prof. Chaloupka's Model 1 and 3 regressions for Delaware and Nebraska. See Expert Report of Frank J. Chaloupka (2005) ¶144.

**Exhibit 11**

### California Prediction, Model 1



**Notes:**

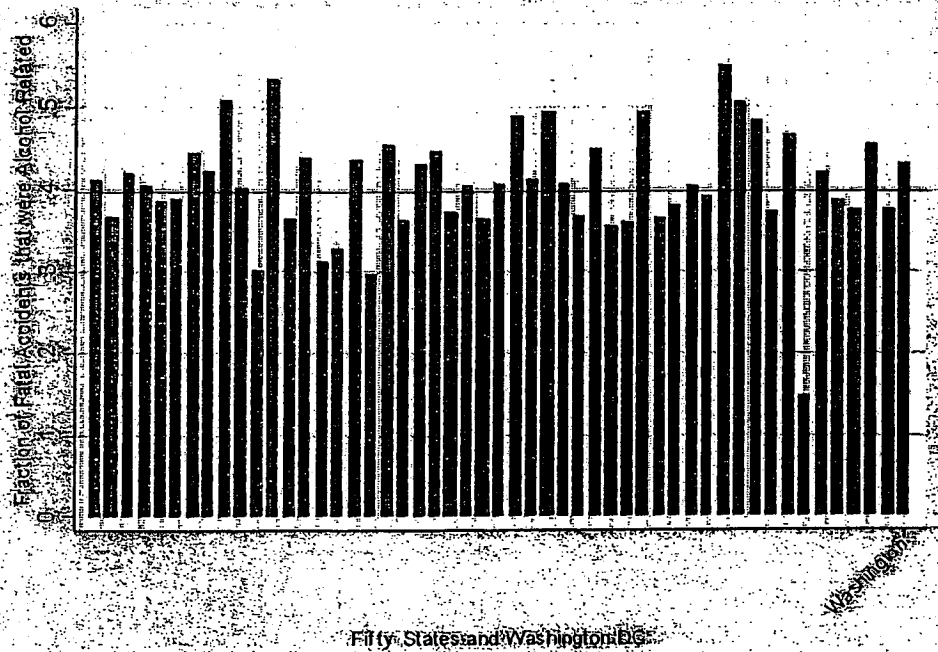
The source of estimates is Exhibit 10.

The full data sample of 1970-2002 is both the estimation and the treatment sample.

The vertical line at year 1980 indicates the year of policy change.

**Exhibit 12**

# Alcohol Related Fatal Accidents as a Fraction of Fatal Accidents in 2003



## Notes:

The histogram shows the fraction of the total number of fatal accident that were alcohol related in the fifty U.S. states and Washington DC for 2003. That fraction for the U.S. was 0.399 or 39.9%. Data used are drawn from National Highway Traffic Safety Administration, Fatal Accident Reporting System (2005).